



ClieNFarms
Climate Neutral Farms

1st public policy workshop: Climate-neutrality and food security

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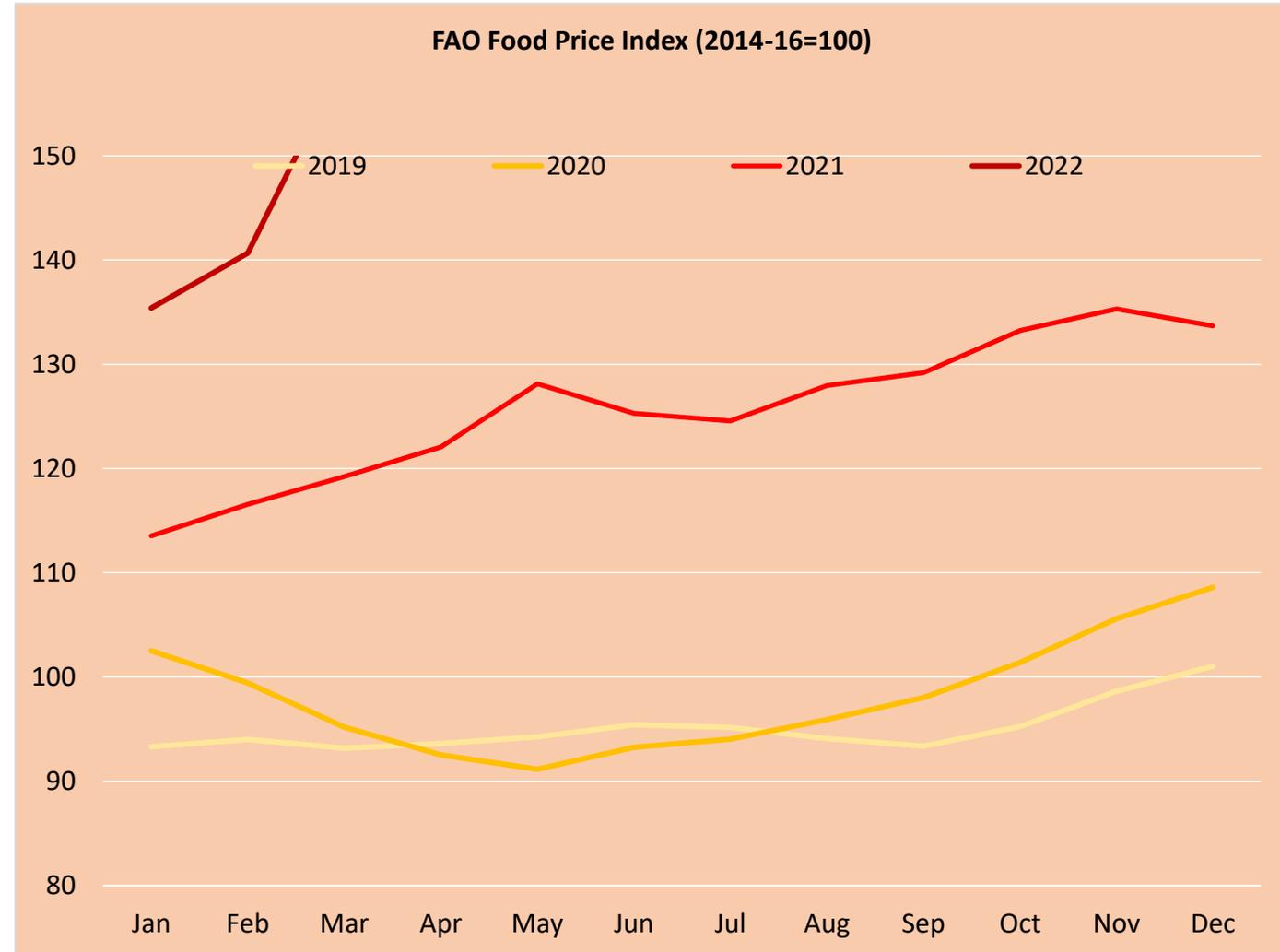
The four big “Cs”:
Climate, Conflict, Covid and now high
food **Costs** – a hunger crisis in the
making!

Main Messages

1. Disruption of global trade of “cheap” agricultural commodities
2. Food price crisis started w. high prices of fossil fuels before the RUS war
3. RUS war blocks export (wheat, sun flower oil & fertilizers) – lock in effect
4. Climate Crisis & degradation of nature impacting food production
- 5. Transformation of food systems must be designed & implemented to tackle intertwined challenges of climate, biodiversity and land/water degradation in time of a food crisis**
6. Action tackling the food crisis must not have adverse effects on transformation
7. Food security is a geo-political issue

Food Prices Reached Record Highs in March 2022

- FAO Food Price Index at **record high** (March 2022)
- Poorer importing countries hit hardest – can they pay imports?
- High prices of fertilisers and lock-in effect
- **Crisis 1970**: using excess mortality data, **millions died of hunger**, famine and malnutrition.



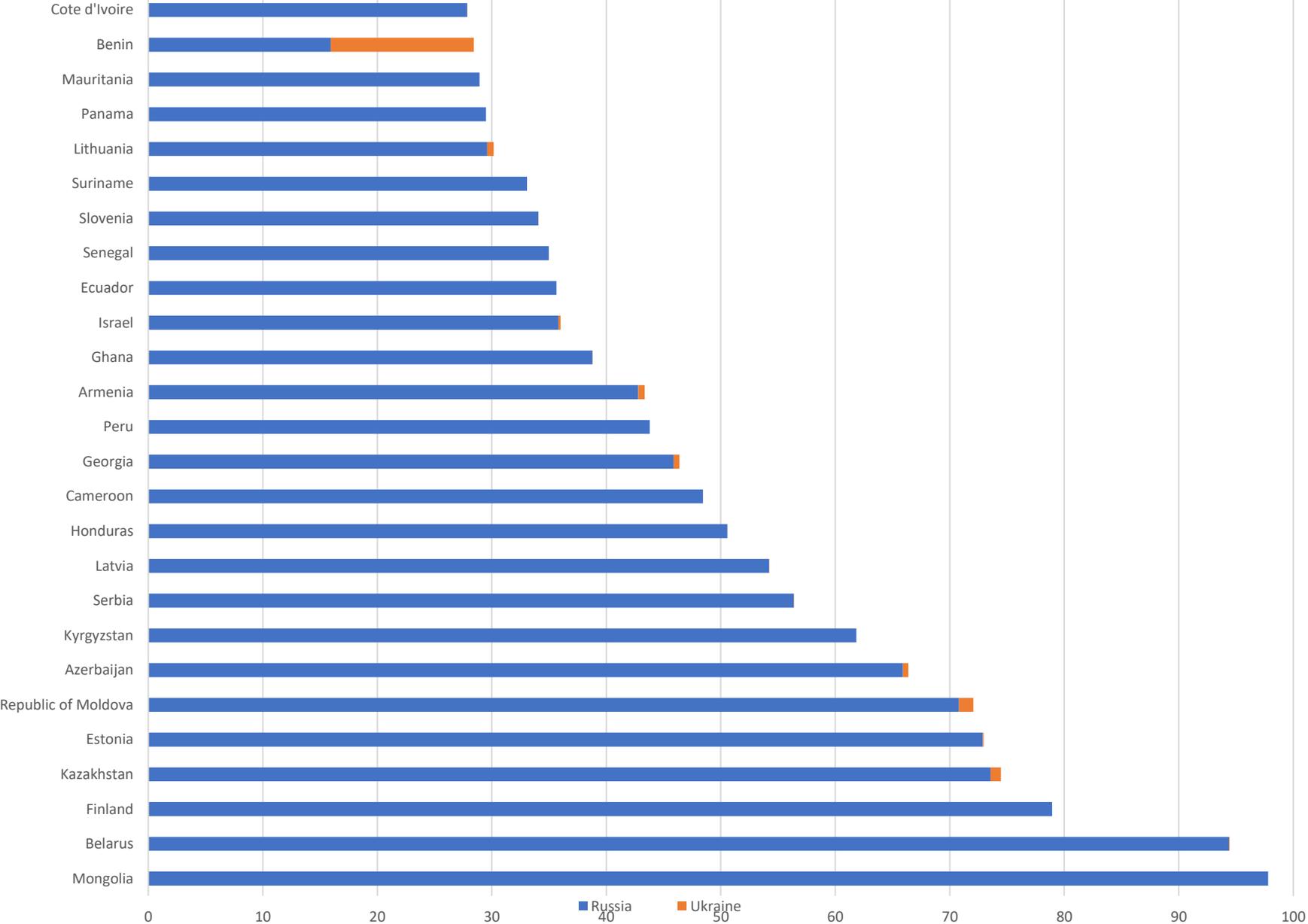
How did we get here - drivers of crisis

1. COVID-19 restrictions lifted - surge in demand (**high prices** esp. for energy)
2. Supply chain disruptions continue today (**higher prices**)
3. Soaring energy prices already before war in UKR - soaring fertiliser prices (**higher prices** of food)
4. RUS and UKR two of the largest food exporters in the world (wheat-30%, maize-6% and sunflower oil-60%). Russia also largest exporter of fertilisers (esp. N).
5. Will Russia halt ag. exports – Uncertainty = **higher prices**
6. Ports are closed in the Black Sea. Will or can Ukraine harvest and export? Uncertainty = **higher prices**
7. Many producing countries are imposing export restrictions and many consuming countries are lowering tariffs (**higher prices**)
8. Secret hoarding and speculation? (**higher prices**)
9. Hunger as a weapon and geopolitics

% Wheat Import Dependency 2021



% Fertilizer Import Dependency 2021



SCENARIO: What could 2022/23 look like?

- Farmers in north. hemisphere decide what & how much to plant
- Impact of climate next season– Droughts? Floods? Favourable?
- Fertilisers very expensive. Food based on fossil fuel based inputs!
- **Stocks-to-Disappearance Ratios** important (i.e., stocks as ratio of domestic utilisation plus exports)
- Entering 2022/23 **stocks are strained**, wheat: only stocks for imports for **45 days. Lowest since last (price) crisis of 2006/08**

The 4 “Cs” and their impact on Food Security

- **Climate**- weather dictates crop outcomes. Dry weather reported in north. Hemisphere. Bread baskets at risk?
- **Conflicts** – war in UKR disrupts exports (wheat, sunflower oil)
- **COVID-19** – functioning supply chains? Lockdown in China...
- **Costs** – energy & fertiliser (Russia!) prices high – Inflation or stagflation?

What can the world do? - Short Term

- **Food Import Facility (FIF)** for vulnerable countries. Countries borrow from a dollar fund to finance imports conditional on investing in sustainability/resilience in ag.
- **Barter system with Russia.** Swapping food for fertilisers. Oil-for-food failed in the past
- **AMIS (G20)** calling for free markets, uninterrupted trade and market transparency . . . Silent today!
- **Sharing Stocks! Crops for food** rather than feed and (bio)energy. US increased blending mandate. Binding global governance needed.
- **Keep markets open**

What can the world do? - Transformation

- **Fossil fuels got us into this mess (always does).** Stop perverse subsidies/false economy of Fossil Fuels. EU food systems absorb 26% of all fossil fuel energy consumed
- Alternative energy needed – agriculture energy positive
- **Agricultural practises:** Legumes **to** fix nitrogen (soil) & animal feed
- Tackle **food losses and waste**
- Invest in **green ammonia** for N fertiliser
- Agroforestry ...
- TCA for food systems + price adjustment

What can the world do?

Combination of short- and long-term responses needed.

Is a global hunger crisis looming on the horizon?

**Is there real prospect of food shortages (not since the
1970s!)**

**There is a risk that short-term solutions make medium-
term perspectives worse**

Transformation of food systems as solution